



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,219	07/10/2003	Stephen Shuler	127039-2	2384

7590

07/19/2004

Robert E. Walter
GE Plastics
One Plastics Avenue
Pittsfield, MA 01201

EXAMINER

PATEL, KIRAN B

ART UNIT

PAPER NUMBER

3612

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/617,219

Applicant(s)

SHULER ET AL.

Examiner

Kiran B. Patel

Art Unit

3612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 07 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Final Rejection

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans (6,685,243) and in view of ordinary skill in the art.

Regarding claims 1-25, Evans (6,685,243) discloses in Fig 1-10 the invention as claimed to include an elongated, unitary structure energy absorber 22 having a crushable forward projecting portion/lobe; a vehicle; a support portion (Fig 2); a forwardly facing front wall, at least a pair of adjacent lobes having interconnecting front walls; a crush initiating conical portion; a fascia; and a reinforcing bumper beam.

However, Evans (6,685,243) does not disclose a molded mat of fiber reinforced resin material; said molded mat having a density of about 600 to about

Art Unit: 3612

300 grams per square meter wherein density is determined by the weight of a square meter of said molded mat; the energy absorber adapted to absorb energy during an impact of the vehicle; absorber of thermoformed or compression molded material; a low density glass mat thermoplastic composite; fiber reinforcement in a matrix of thermoplastic material; mat comprises a chopped glass fiber and a thermoplastic binder material comprising a polyester resin and polycarbonate; polyester is polyalkylene terephthalate; and polycarbonate is an polycarbonate.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the energy absorber using a molded mat of fiber reinforced resin material; said molded mat having a density of about 600 to about 300 grams per square meter wherein density is determined by the weight of a square meter of said molded mat; the energy absorber adapted to absorb energy during an impact of the vehicle; absorber of thermoformed or compression molded material; a low density glass mat thermoplastic composite; fiber reinforcement in a matrix of thermoplastic material; mat comprises a chopped glass fiber and a thermoplastic binder material comprising a polyester resin and polycarbonate; polyester is polyalkylene terephthalate; and polycarbonate is an polycarbonate,

since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ416.

Support for this obviousness is found in paragraph 0011 of the specification.

"According to an embodiment, the energy absorber 4 is compression molded from a low density glass mat thermoplastic composite (GMT). One such mat is prepared by AZDEL, Inc. and sold under the trademark SUPERLITE.RTM. mat. The density as employed and defined herein is the weight of a square meter of the GMT. Preferably, the density of the GMT is from about 600 grams per square meter to about 3000 grams per square meter. The density may be less than 600 grams per square meter or greater than 3000 grams per square meter depending on the desired energy absorber impact wanted. Preferably, the upper density should be less than 3000 grams per square meter. The upper limit of the density should not so stiff as not to absorb the energy of impact on a pedestrian such as not to reduce the forces translated to a pedestrian's leg or leg's upon impact."

Above recitation clearly teaches that the molded mat having a density of about 600-3000 grams per square meter, wherein density is determined by the weight of a square meter of said molded mat, was available in the open market, the density can be less than 600 or more than 3000 grams per square meter, and it was within the general skill of a worker in the art at the time of the invention made to select the density depending on the desired energy absorber impact wanted.

Response to Arguments

1. Applicant's arguments filed 6/7/04 have been fully considered but they are not persuasive.

In response to applicant's argument that "Evans does not describe nor suggest that the energy absorber is made from a molded mat of fiber reinforced resin material wherein the molded mat has a density of about 600 to 3000g/m²"

Art Unit: 3612

is not valid because Examiner's reasoning is fully supported by the specification paragraph 0011 "According to an embodiment, the energy absorber 4 is compression molded from a low density glass mat thermoplastic composite (GMT). One such mat is prepared by AZDEL, Inc. and sold under the trademark SUPERLITE.RTM. mat. The density as employed and defined herein is the weight of a square meter of the GMT. Preferably, the density of the GMT is from about 600 grams per square meter to about 3000 grams per square meter. The density may be less than 600 grams per square meter or greater than 3000 grams per square meter depending on the desired energy absorber impact wanted.

Preferably, the upper density should be less than 3000 grams per square meter. The upper limit of the density should not so stiff as not to absorb the energy of impact on a pedestrian such as not to reduce the forces translated to a pedestrian's leg or leg's upon impact." Above recitation clearly teaches that the molded mat having a density of about 600-3000 grams per square meter, wherein density is determined by the weight of a square meter of said molded mat, was available in the open market, the density can be less than 600 or more than 3000 grams per square meter, and it was within the general skill of a worker in the art

at the time of the invention made to select the density depending on the desired energy absorber impact wanted.


Conclusion

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

3. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 3612

4. Any inquiry concerning this communication or earlier communications should be directed to Primary Examiner Kiran B. Patel whose telephone number is 703-305-0254. The examiner can normally be reached on M-F from 8:00 to 5:00. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.


Kiran B. Patel, P.E.
Primary Examiner
Art Unit 3612
July 12, 2004